



ILLINOIS COMMERCE COMMISSION

August 8, 2005

Village of Wilmette, Illinois,
Petitioner,

v.

Union Pacific Railroad Company,
Respondent.

T05-0043

Petition of the Village of Wilmette, Illinois for an Order approving a plan to revise signal phasing and make necessary grade crossing and railroad warning device changes at the following three (3) intersections and adjacent grade crossings within and under the jurisdiction of the Village of Wilmette: (1) Green Bay Road & Wilmette Avenue; (2) Green Bay Road & Central Avenue; and Green Bay Road & Lake Avenue, maintaining the existing preemption time provided by the Union Pacific Railroad.

Mr. Timothy J. Frenzer
Corporation Counsel
Village of Wilmette
1200 Wilmette Avenue
Wilmette, IL 60091-2721

Dear Mr. Frenzer:

Receipt is acknowledged of the original and three (3) copies of the Petition filed August 8, 2005 in the above matter.

All future correspondence/pleadings should be filed with an original and two (2) copies and addressed to: Mr. Dave Lazarides, Acting Director of Processing, Illinois Commerce Commission, 527 East Capitol Avenue, Springfield, IL 62701 or you may file the original electronically through E-docket if you have an account. To apply for an account, please log on to www.icc.state.il.us and apply for an E-docket account.

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Village of Wilmette President/Clerk

ORIGINAL

**STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION**

RECEIVED
AUG 8 2005

Illinois Commerce Commission
RAIL SAFETY SECTION

VILLAGE OF WILMETTE, ILLINOIS,

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v.

UNION PACIFIC RAILROAD COMPANY,

Respondent.

DOCKET NO. 705-0043

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Avenue, maintaining the existing preemption
time provided by the Union Pacific Railroad**

PETITION

NOW COMES the Petitioner, the Village of Wilmette, Cook County, Illinois, an Illinois home rule municipal corporation (Petitioner), by and through its attorney, Timothy J. Frenzer, Corporation Counsel of the Village of Wilmette, Illinois, and respectfully petitions the Illinois Commerce Commission (Commission) as follows:

1. Petitioner Village of Wilmette (hereinafter "Village") is a home rule municipal corporation located in Cook County in the State of Illinois, whose principal offices are located at 1200 Wilmette Avenue, Wilmette, Illinois 60091.

DOCKETED

AUG 8 2005

2. The Village is represented in this proceeding by Timothy J. Frenzer, its Corporation Counsel, 1200 Wilmette Avenue, Wilmette, Illinois 60091, telephone number (847) 853-7504, facsimile number (847) 853-7700, e-mail address FrenzerT@wilmette.com.

3. The Village of Wilmette agrees to accept service in this proceeding by electronic means as provided in Section 200.1050 of the Rules of the Commission.

4. The Respondent, Union Pacific Railroad Company (hereinafter "Railroad"), whose Illinois office is located at or near 101 North Wacker Drive, Suite 1910, Chicago, Illinois 60606, is a rail carrier operating its lines of railroad in the State of Illinois, including the dual main line railroad tracks passing through the Village of Wilmette, Illinois (the "Railroad").

5. The Village proposes to change the existing traffic signal phasing from the current system of separate eastbound and westbound movements to a combined east-west phase and a separate east-west protected left turn phase, along with certain grade crossing and railroad warning device improvements incidental thereto (the "Railroad Crossing Improvements") at the following three intersections (the "Intersections") and adjacent grade crossings (the "Grade Crossings") located within and under the jurisdiction of the Village: Green Bay Road and Lake Avenue, Green Bay Road and Central Avenue, and Green Bay Road and Wilmette Avenue, as described and depicted in the Green Bay Road Traffic Signal Report, dated July, 2005, prepared by T.Y. Lin International, Inc. (the "TY Lin"), a copy of which is attached hereto as Exhibit A and expressly incorporated herein by this reference and made a part hereof (the "Signal Improvement Report").

6. The above described Intersection improvements and Railroad Crossing Improvements will be installed in accordance with the appropriate drawings in the Signal Improvement Report.

7. The traffic signals will continue to be operated according to the following three 1997 reports: "Green Bay Rd. at Lake Ave. Traffic/Railroad Signal Report," dated January 13, 1997; "Green Bay Rd. at Central Ave. Traffic/Railroad Signal Report," dated January 13, 1997; and "Green Bay Rd. at Wilmette Ave. Traffic/Railroad Signal Report," dated January 16, 1997; copies of which are attached hereto as Group Exhibit B and expressly incorporated herein by this reference and made a part hereof (the "Traffic/Railroad Signal Reports").

8. The aforementioned Lake, Central and Wilmette Avenues, located within and under the jurisdiction of the Village crosses the Railroad at-grade, as depicted in the following exhibits in the Signal Improvement Report: Existing Conditions (Lake Avenue – Exhibit 1; Central Avenue – Exhibit 3; and Wilmette Avenue – Exhibit 5) and Proposed Conditions (Lake Avenue – Exhibit 2; Central Avenue – Exhibit 4; and Wilmette Avenue – Exhibit 6).

9. The Grade Crossings are all protected by automatic flashing lights and gates.

10. Approximately 64-66 feet west of the three Grade Crossings, each street intersects with Green Bay Road.

11. Because of frequent peak period traffic breakdowns on Green Bay Road, with spillover effects onto adjacent neighborhood streets and occasional back-ups on Green Bay Road through the adjacent signalized intersections, the operation of the traffic signals at the three Intersections needs to be modified to reduce the inordinate amount

of lost time in each signal cycle, which is due to the separated eastbound and westbound signal phases, and which is exacerbated by the frequent peak period railroad signal preemptions.

12. In addition, in order to provide separate east-west left turn channelization at the three Intersections, the Grade Crossings will be modified by adding a left turn lane across the Railroad tracks, as depicted in Exhibits 2, 4 and 6 in the attached Signal Improvement Report. This will require widening the westbound Grade Crossing approaches from two lanes to three lanes, which will in turn require the addition of a second railroad crossing gate with automatic flashing lights to be located on a 10-foot wide median island on the westbound approach at each of the three Grade Crossings. At all three Grade Crossings, these modifications can be accomplished within the bounds of the existing Grade Crossing roadway panels.

13. The minimum preemptions provided by the Railroad for the three Intersections will be retained in order to promote the safety and convenience of the public and employees and passengers of the Railroad and of its lessee, the Commuter Rail Division of the Regional Transportation Authority d/b/a Metra (the "Metra").

14. TY Lin has provided the Village with a preliminary cost of \$550,000.00 for the above-described Railroad Crossing Improvements and \$837,815.00 for the concomitant roadway improvements both east and west of each Grade Crossing (the "Ancillary Roadway Work"). A final cost study for the Railroad Crossing Improvements is being prepared by the Railroad (see Paragraph 16 and Exhibit D, *infra*), and Village will file a copy of said final cost study with the Illinois Commerce Commission upon receipt of same from the Railroad.

15. The Village agrees to pay all costs attributable to the above described Railroad Crossing Improvements and the Ancillary Roadway Work, contingent on the Illinois Commerce Commission entering an Order granting the request herein. The Village has applied for and received approval of Federal Congestion Mitigation and Air Quality (CMAQ) funding through the Chicago Area Transportation Study (CATS), and administered through the Illinois Department of Transportation, to cover a portion of the cost for said Work.

16. Petitioner has maintained a continuing dialogue with the Railroad throughout the course of developing the Signal Improvement Plan, and has incorporated all previous revisions and comments from the Railroad into the Signal Improvement Report. Petitioner received a letter, dated July 1, 2005 and attached hereto as Exhibit D, indicating that the Railroad has no objections to the Railroad Crossing Improvements and Ancillary Roadway Work proposed in the Signal Improvement Report. Accordingly, Petitioner reasonably believes that the Signal Improvement Report, including Exhibits 1 through 6, is acceptable to the Railroad.

17. Pursuant to Section 7401 of the Illinois Commercial Transportation Law (625 ILCS 5/18c-7401), the Illinois Commerce Commission has the express statutory authority to approve and order the Railroad Crossing Improvements and Ancillary Roadway Work.

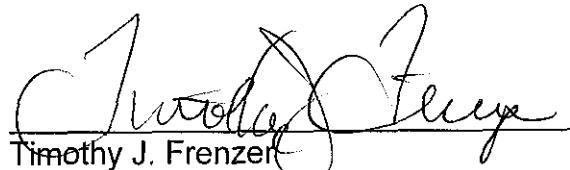
NOW, THEREFORE, Petitioner Village of Wilmette, prays the Illinois Commerce Commission enter an Order:

- A. Finding that the Railroad Crossing Improvements and Ancillary Roadway Work are necessary to further promote the safety and convenience of the public and the employees of the Railroad, and its lessee Metra.
- B. Finding that retaining the existing highway traffic signal subsystem, including all existing warning signs and markings and traffic signals are necessary to promote the and safeguard the health and safety of the public.
- C. Approving and authorizing the Railroad Crossing Improvements and Ancillary Roadway Work, in accordance with the Signal Improvement Report.
- D. Allocating the costs of the Railroad Crossing Improvements and Ancillary Roadway Work to the Petitioner Village.

Respectfully Submitted,

VILLAGE OF WILMETTE, ILLINOIS, an
Illinois home rule municipal corporation,

BY:


Timothy J. Frenzer
Corporation Counsel

Department of Law
Village of Wilmette
1200 Wilmette Ave.
Wilmette, IL 60091
Tel. No. (847) 853-7504
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STATE OF ILLINOIS
BEFORE THE ILLINOIS COMMERCE COMMISSION

VILLAGE OF WILMETTE, ILLINOIS,

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VERIFICATION

I, **BRIGITTE MAYERHOFER, P.E.**, state under oath that I am the Village Engineer of the Village of Wilmette, Cook County, Illinois, the Petitioner in the above-captioned proceeding, that I have read the contents of the Village of Wilmette's Petition in this proceeding, and that the statements made therein are true and correct to the best of my knowledge, information and belief.

DATED at Wilmette, Illinois this 4th day of August, 2005.

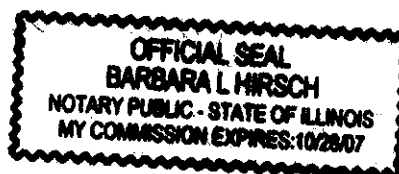
Brigitte Mayerhofer

Brigitte Mayerhofer, P.E.
Director of Engineering Services
Village of Wilmette, Illinois

Subscribed and sworn before me
this 4 day of August, 2005.

Barbara L. Hirsch

Notary Public



Timothy J. Frenzer
Corporation Counsel
Department of Law
Village of Wilmette
1200 Wilmette Ave.
Wilmette, IL 60091
Tel. No. (847) 853-7504
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E-Mail: FrenzerT@wilmette.com

INDEX OF EXHIBITS

<u>EXHIBIT</u>	<u>DESCRIPTION</u>
A	Signal Improvement Report (July 2005) Prepared by TY Lin
GROUP B	Traffic/Railroad Signal Reports (1997) <ol style="list-style-type: none">1. Green Bay Road at Wilmette Avenue2. Green Bay Road at Central Avenue3. Green Bay Road at Lake Avenue
C	Cost Estimates (July 2005) Prepared by TY Lin
D	Letter from Union Pacific Railroad (July 1, 2005)

EXHIBIT A

**SIGNAL IMPROVEMENT REPORT
(JULY 2005)**

Prepared by T.Y. Lin

GREEN BAY ROAD TRAFFIC STUDY

Village of Wilmette

Summary Report

Illinois Commerce Commission

July 2005

Over the past two years, T. Y. Lin has been working with the Village of Wilmette to review traffic operations and design issues along Green Bay Road in an effort to alleviate some of the congestion problems encountered, particularly during weekday peak periods. This congestion has led to increasing numbers of motorists diverting off of Green Bay Road onto adjacent neighborhood streets, and there are even occasional back-ups on Green Bay Road extending back into the next signalized grade-crossing intersection. The Village Board of Trustees and the Village's Transportation Commission have had numerous public meetings to discuss congestion relief on Green Bay Road. A capital improvement project designed to address these problems has been developed, with input from discussions with the Union Pacific Railroad and staff of the Illinois Commerce Commission. The following is a brief summary report on the findings of the traffic investigation and a description of the proposed improvement project.

Introduction

Green Bay Road is a three-lane roadway with a 51-foot wide cross section, generally consisting of one through lane in each direction, a continuous two-way left turn lane, and on-street parking on both sides of the street. Signalized intersections at Linden Avenue, Wilmette Avenue, Central Avenue, and Lake Avenue were reviewed as part of the study, with updated traffic counts taken in April, 2003. The signals along Green Bay Road are interconnected and designed to operate in a coordinated fashion. There are at-grade railroad crossings at each cross street, in close proximity to Green Bay Road, with the track elevation higher than Green Bay Road.

Results of IDOT Street Improvement Project

As a result of a street reconstruction project by the Illinois Department of Transportation, wider and safer lanes were provided on Green Bay Road, continuous left turn protection was provided for all intersections and driveways, and one travel lane in each direction was eliminated. Previously, Green Bay had a ten-foot and nine-foot travel lane in each direction, adjacent to seven-foot wide parking lanes. The lane elimination had a relatively minor effect on capacity since the left through lane was often blocked by left turning vehicles. However, at that same time a new ICC requirement for split-phase signal operations effectively reduced the capacity of the signalized intersections by one-third.

Existing Cross-Street Geometrics and Signal Operations

As depicted on the attached figure at the end of this report, Lake Avenue currently has four lanes at Green Bay, with shared through-left and through-right traffic lanes in each direction.

Likewise, Central Avenue has four lanes, with shared through-left and through-right lanes in each direction.

Wilmette Avenue has two through lanes in each direction, with shared turn lanes, but also has an exclusive eastbound right-turn lane on the west approach.

Linden Avenue has one lane in each direction, plus an exclusive eastbound left-turn lane on the west approach.

Currently, the split-phase operation has all eastbound and westbound movements running separately, and there is generally good progression on Green Bay Road and acceptable traffic Levels of Service at the intersections when there are no trains present. However, the railroad preemption forces the signals to leave the standard Green Bay Road coordination to give vehicles the opportunity to move off the crossing. After the railroad preemption, each signal goes first to westbound green, then eastbound, and then Green Bay Road. The end of the railroad preemption for each signal depends on the direction of the train and time in the station. The signal coordination can take three to four cycles (6 to 9 minutes) to return, and is often interrupted by another railroad call during peak periods.

Operational Alternatives

To address the congestion issue in this area, two basic alternatives were considered. One alternative would restore Green Bay Road to two lanes in each direction, while retaining the left turn lane channelization. This would require stripping most of the on-street parking or widening along most of Green Bay Road. However, the east-west delays would remain, since the split phasing would be retained.

The preferred alternative considered is to revise the east-west street geometry and signal phasing to provide simultaneous east-west through/right turn movements and separate left turn on green arrow only for the low volume left turn movements. Since Lake Avenue, Central Avenue, and Wilmette Avenue carry substantially higher volumes than Linden Avenue and the grade-crossing geometry at Linden resulted in poor sight lines, it was decided to only include these three streets in the improvement project.

The project involves signal modification at the three intersections, widening the east and west legs of the intersection at Lake, widening the east leg of the

intersection at Central, and widening the east leg of the intersection at Wilmette. Barrier medians will be constructed on the east leg of the intersections to provide space for the installation of median railroad gates. These proposed improvements will significantly reduce the delay on all approaches at these intersections.

Proposed Geometrics

At each intersection, exclusive opposing left turn lanes will be provided on the east and west legs of the intersection, with left turn on green arrow only phasing provided for these movements. Southbound left turns from Green Bay Road will also be operated on a left turn on green arrow only basis.

On Lake Avenue, there will be two eastbound through lanes and two westbound through lanes. On Central, there will be one eastbound through-right, one westbound through lane, and one westbound right turn only lane provided. On Wilmette, there will be one eastbound through lane, one exclusive eastbound right turn lane, one westbound through lane and one westbound right turn only lane.

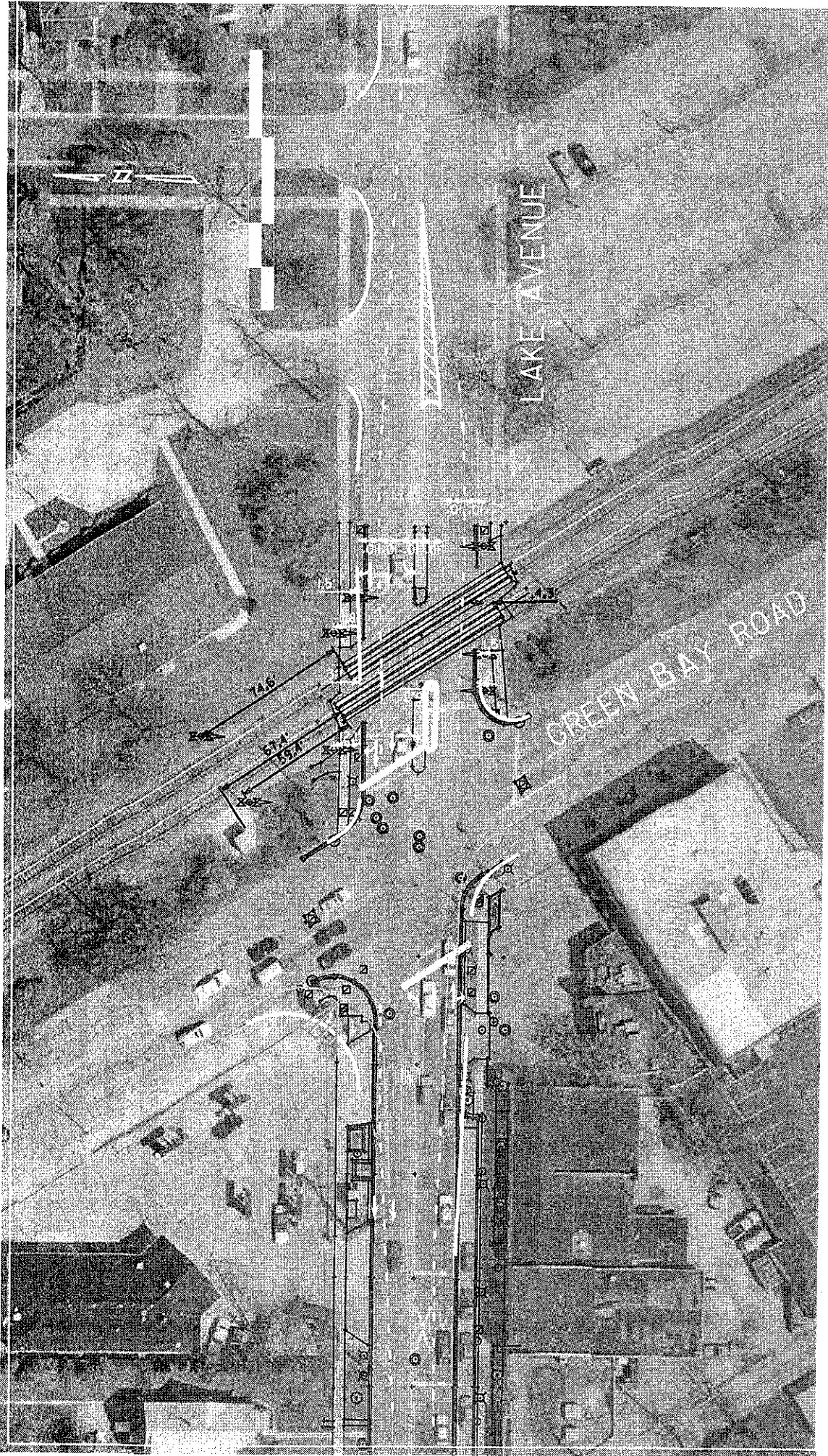
On Central, there may need to be some modification of the Route #421 Pace Bus operation, which now turns to and from Central at Green Bay Road, in order to continue on its route to Wilmette Avenue. The proposed barrier median between the tracks and Green Bay Road will be narrow enough to allow retention of the northbound to eastbound right turn by buses. The proposed geometry and phasing may require re-routing westbound buses west on Central to Park Avenue, and then to Wilmette Avenue. A new bus stop will be located on the north side of Central west of Green Bay, and a bus pull-out bay might be needed along the south side of Central east of the railroad crossing.

The proposed geometric configurations for the three intersections are depicted in the attachment at the end of the report.

Conclusions

The current traffic operation along Green Bay Road is acceptable when there are no trains present. However, railroad preemption forces Green Bay Road signals out of coordination, thereby losing the effectiveness of progression northbound and southbound. The greatest improvement to overall signal delay is the elimination of the split-phase operation along Green Bay Road from Lake Avenue to Wilmette Avenue. Removal of the split-phase operation can only occur with geometric improvements as per the ICC standards for at-grade railroad crossings. The Village of Wilmette has received approval for federal funding for these improvements under the Congestion Mitigation Air Quality (CMAQ) program.

Intersection of
Green Bay Road and Lake Avenue



Technical drawing overlaid on an aerial photograph of a city street intersection. The drawing shows a vehicle labeled "CITY-BUS" with dimensions: 25.00, 7.00, 10.50, and 1.00. A table of "Look-Ahead Time Steering Angle" values is provided:

Look-Ahead Time	Steering Angle
8.30	
8.50	
6.00	
4.40	

The drawing also includes a diagram of a vehicle's path and a table of "Look-Ahead Time Steering Angle" values. The street names "CENTRAL AVENUE" and "GREEN BAY ROAD" are visible. The image is rotated 90 degrees clockwise.

Width	Lock to Lock Time	Steering Angle	feet
8.50			8.50
8.50			8.50
6.00			6.00
4.40			4.40